

ABSTRACT OF THE DISCLOSURE

[0037]

A viscous material dispense system including a dispense valve having an outlet, a mix tube secured at an upper end thereof to the outlet of the dispense valve, a mixer shroud positioned telescopically over the mix tube and including a conical lower end, and an air shroud fitted telescopically over the lower end of the mixer shroud and defining a conical surface positioned in confronting relation to the conical tip portion of the mixer shroud. The air shroud and the lower end of the mixer shroud coact to define a plurality of circumferentially spaced axially extending flutes extending downwardly between the outer surface of the mixer shroud and the inner surface of the air shroud and a plurality of circumferentially spaced radially extending flutes defined between the conical tip portion of the mixer shroud and the conical surface of the air shroud. Each radial flute communicates with a respective axial flute so that air enters proximate the upper end of the air shroud, moves downwardly between the air shroud and the mixer shroud as a series of axially spaced air streams, and thereafter moves radially inwardly between the lower end of the mixer shroud and the air shroud as a plurality of radially inwardly moving air streams which impinge upon a material bead exiting from the lower end of the mix tube to impart a swirling movement to the bead.